

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of : SAKATA et al.  
Application No. :  
Filed : herewith Group Art Unit :  
Title : TERMINAL CONDITION CONTROLLING METHOD AND  
APPARATUS

Assistant Commissioner for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Please enter the following amendment in the above-identified application. A marked up version showing the changes relative to the previous version is provided in the accompanying paper "Marked Up Version Of Replacement Paragraphs and Claim 1 Showing Changes Relative To Previous Version".

**In the Specification:**

In accordance with 37 C.F.R. §1.121, please amend the specification and claims as follows. The replacement paragraphs are provided in a clean form below.

Please delete the paragraph at page 1, lines 22-26, and enter the following replacement paragraph:

On the other hand, with use of such a transmission/reception system, version-up (both upgrade and update) software (version-up data) is distributed by broadcasting to update the version of software, and the terminal device receives the broadcasted software and replaces the program present therein with the new software. Such a method is beginning to be brought into practice by the broadcasting satellite (BS) digital broadcasting, for example.

[illegible]

In order to solve the above-mentioned problem, a method of transmitting the own condition of the terminal from the terminal to the server apparatus through a communication line has been proposed. With use of this method, however, the line connection fee is needed, and it is thus preferable to transmit the information by “sharing” (attaining the object using space (gap) (bandwidth and time gap) of the line connected for the other object), if possible. However, also in this method, the information cannot be transmitted every time, and thus the conditions of the terminals cannot be attained in real time.

[illegible]

Please delete the paragraph at page 7, lines 2-13, and enter the following replacement paragraph:

FIG. 1 is a block diagram showing the entire constitution of the broadcasting system according to the first embodiment. In this drawing, 20 denotes a broadcasting station for distributing broadcasting data, such as a BS digital broadcasting station, 21 denotes a broadcasting system control center in which the server apparatus is installed, 22 denotes a terminal of a user. The terminal can be any receiver which can receive satellite broadcasting, for example, a PC, TV or set-top box. There are a plurality of users joining the system, and thus there are a plurality of terminals 22. Each of the terminals 22 has download means 31 for downloading into the terminal 22 the software transmitted from the broadcasting station through broadcasting, terminal condition controlling means 32 for controlling the condition of the terminal 22, viewing information storing means 33 for storing broadcasted and received viewing information(e.g., a history of television programs viewed), and terminal condition informing means 34 for informing the center of the condition of the terminal. The condition refers to the terminal's software or hardware state, for example, the amount of recordable memory vacancy or recorded contents id. The terminal condition informing means 34 is connected to the server apparatus of the center 21 through a communication line 35.

Please delete the paragraphs at page 7, line 16 to page 8, line 3, and enter the following replacement paragraphs:

According to the above-mentioned broadcasting system, software, i.e., version-up data is transmitted through broadcasting from the broadcasting station 20 to the terminals 22. The download means 31 of the terminal 22 receives the software to execute the download process. After executing the download process, the download means 31 informs the terminal condition controlling means 32 of whether or not the version-up of the software is suitably executed, in order to control the terminal condition. The broadcasting station 20 also broadcasts normal contents (e.g., television programming) other than the version-up data.

On the other hand, the terminal condition informing means 34 collects the information indicating the conditions of the terminals 22 to inform the center 21 of the conditions of the terminals 22. The conditions of the terminals 22 are informed through the communication line 35, such as an upstream telephone link. The center 21 receives the conditions of the terminals 22 and analyzes the information and collects statistics. The timings of informing the condition from the terminals 22 to the center 21 are dispersed between the plurality of the terminals 22 to prevent the concentration of the informing operation. The distribution of the informing timings can be changed by the instruction on the information timing from the center 21 to each of the terminals 22. The information timing instruction can be executed during the response communication operation for informing the condition from the terminals 22 to the center 21. The center 21 collects the conditions of the terminals 22 and sets the next informing timing to be distributed.

Please delete the paragraph at page 8, line 13 to page 9, line 1, and enter the following replacement paragraph:

The transmitting device 500 comprises software storing means 51 for storing the software to be downloaded (e.g., where the software is used for controlling a TV, such as for realizing a electronic program guide or EPG); software information controlling means 52 for controlling a software controlling table to prepare a software information table from the software controlling table; transmitting means 54 for transmitting various data to be broadcasted; software transmitting means 53 for reading the software to be downloaded from the software storing means 51 and transferring it to the transmitting means 54; contents storing means 59 for storing contents of the program to be broadcasted; and contents transmitting means 60 for reading the contents to be downloaded from the contents storing means 59 and transferring it to the transmitting means 54. The software information controlling means 52 controls the software controlling table to prepare the software information table from the software controlling table, and transmits the software information table to the transmitting means 54. The software information controlling means 52 controls the download list table, and transmits the download list table to the software transmitting means 53 and the transmitting means 54. The software controlling table includes a software name and software information of each of the software downloaded to the receiving device 100. The software information table is prepared for the receiving device 100 so as to recognize the present version of the software in the transmitting device 500. The download list table represents the list of the software enable of being downloaded by the receiving device 100. The download list table includes a software name, a version, and a schedule indicating the date on which the software is broadcasted, the starting time, and the ending time.

Please delete the paragraph at page 20, lines 4-7, and enter the following replacement paragraph:

The advertising rates calculating section (0507) uses a formula, for example, for calculating advertising rates:

$$f(x) = x * 5,000,000$$

where x is the audience rating.

BRMFS1 273059v1

Please enter an amended claim 1 as follows:

1. (Amended) A terminal condition control method comprising a plurality of terminals and a server apparatus controlling conditions of the terminals, wherein:  
the terminals are connected to the server apparatus through a communication line and transmit information indicating the conditions of the terminals,  
the server apparatus statistically processes the attained conditions of the terminals,  
the plurality of terminals have timings of informing the server apparatus of the condition determined for the respective terminals, and the timings for the respective terminals are distributed within a predetermined period.

BRMFS1 273059v1



Entry of this amendment is respectfully requested.

Respectfully submitted,

Dated: 10-10-01

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**Marked Up Version Of Replacement Paragraphs and Claim 1 Showing Changes Relative To  
Previous Version**

This paper provides a marked up version of the replacement paragraphs and claim 1 (the sole amended claim) showing the changes relative to the previous version. The changes are shown in red ink below in photocopied pages of the specification as filed. A clean copy of the replacement paragraphs is provided in the accompanying Preliminary Amendment.

## MARKED UP TEXT SHOWING REVISIONS

Page 1, lines 22-26:

On the other hand, with use of such a transmission/reception system, version-up (both upgrade and update) software (version-up data) is distributed by broadcasting to update the version of software, and the terminal device receives the broadcasted software and replaces the program present therein with the new software. Such a method is beginning to be brought into practice by the ~~BS~~broadcasting satellite (BS) digital broadcasting, for example.

Page 2, lines 24-30:

In order to solve the above-mentioned problem, a method of transmitting the own condition of the terminal from the terminal to the server apparatus through a communication line has been proposed. With use of this method, however, the line connection fee is needed, and it is thus preferable to transmit the information by "sharing" (attaining the object using space ~~{gap}~~(gap) (bandwidth and time gap) of the line connected for the other object), if possible. However, also in this method, the information cannot be transmitted every time, and thus the conditions of the terminals cannot be attained in real time.

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Page 7, lines 2-13:

**FIG. 1** is a block diagram showing the entire constitution of the broadcasting system according to the first embodiment. In this drawing, 20 denotes a broadcasting station for distributing broadcasting data, such as a BS digital broadcasting station, 21 denotes a broadcasting system control center in which the server apparatus is installed, 22 denotes a terminal of a user. The terminal can be any receiver which can receive satellite broadcasting, for example, a PC, TV or set-top box. There are a plurality of users joining the system, and thus there are a plurality of terminals 22. Each of the terminals 22 has download means 31 for downloading into the terminal 22 the software transmitted from the broadcasting station through broadcasting, terminal condition controlling means 32 for controlling the condition of the terminal 22, viewing information storing means 33 for storing broadcasted and received viewing information (e.g., a history of television information, programs viewed), and terminal condition informing means 34 for informing the center of the condition of the terminal. The condition refers to the terminal's software or hardware state, for example, the amount of recordable memory vacancy or recorded contents id. The terminal condition informing means 34 is connected to the server apparatus of the center 21 through a communication line 35.

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## MARKED UP TEXT SHOWING REVISIONS

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## MARKED UP TEXT SHOWING REVISIONS

Page 20, lines 4-7:

The advertising rates calculating section (0507) uses a formula, for example, for calculating advertising rates:

$$f(x) = \cancel{x \times 100,000} \underline{x * 5,000,000}$$

where x is the audience rating.

## MARKED UP TEXT SHOWING REVISIONS

Claim 1:

1. (Amended) A terminal condition control method comprising a plurality of terminals and a server apparatus controlling conditions of the terminals, ~~and controlling conditions of the terminals~~, wherein:

the terminals are connected to the server apparatus through a communication line and transmit information indicating the conditions of the terminals,

the server apparatus statistically processes the attained conditions of the terminals,

the plurality of terminals have timings of informing the server apparatus of the condition determined for the respective terminals, and the timings for the respective terminals are distributed within a predetermined period.



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